

INTERNATIONAL SEARCH REPORT

Inte Application No
PCT/1B2005/000192

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N9/96 C12N9/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 343 225 B1 (CLARK, JR. LELAND C) 29 January 2002 (2002-01-29)	1,24-26, 29
Y	the whole document	1-29
Y	LOPEZ-SERRANO P ET AL: "CROSS-LINKED ENZYME AGGREGATES WITH ENHANCED ACTIVITY: APPLICATION TO LIPASES" BIOTECHNOLOGY LETTERS, KEW, SURREY, GB, vol. 24, no. 16, August 2002 (2002-08), pages 1379-1383, XP009003775 ISSN: 0141-5492 cited in the application the whole document	1-29

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

22 April 2005

Date of mailing of the international search report

06/05/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BEZEMER J M ET AL: "Microspheres for protein delivery prepared from amphiphilic multiblock copolymers - 1. Influence of preparation techniques on particle characteristics and protein delivery" JOURNAL OF CONTROLLED RELEASE, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL, vol. 67, no. 2-3, July 2000 (2000-07), pages 233-248, XP004199172 ISSN: 0168-3659 the whole document	1-29
Y	WALDE P ET AL: "Enzymes inside lipid vesicles: preparation, reactivity and applications" BIOMOLECULAR ENGINEERING, ELSEVIER, NEW YORK, NY, US, vol. 18, no. 4, 31 October 2001 (2001-10-31), pages 143-177, XP004307241 ISSN: 1389-0344 the whole document	1-29
Y	NAKASHIMA T ET AL: "PARTICLE CONTROL OF EMULSION BY MEMBRANE EMULSIFICATION AND ITS APPLICATIONS" ADVANCED DRUG DELIVERY REVIEWS, AMSTERDAM, NL, vol. 45, no. 1, 6 December 2000 (2000-12-06), pages 47-56, XP008037070 ISSN: 0169-409X the whole document	1-29
Y	US 5 279 847 A (OKONOGI ET AL) 18 January 1994 (1994-01-18) the whole document	1-29
Y	VORDERWULBECKE T ET AL: "Comparison of lipases by different assays" ENZYME AND MICROBIAL TECHNOLOGY 1992 UNITED STATES, vol. 14, no. 8, 1992, pages 631-639, XP002325771 ISSN: 0141-0229 the whole document	5,6,27,28
Y	EP 1 088 887 A (DSM N.V) 4 April 2001 (2001-04-04) the whole document	1-29
	-/--	

INTERNATIONAL SEARCH REPORT

Inte al Application No
PCT/IB2005/000192

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BACHTSI A R ET AL: "AN EXPERIMENTAL INVESTIGATION OF ENZYME RELEASE FROM POLY(VINYL ALCOHOL) CROSSLINKED MICROSPHERES" JOURNAL OF MICROENCAPSULATION, TAYLOR AND FRANCIS INC. LONDON, GB, vol. 12, no. 1, January 1995 (1995-01), pages 23-35, XP000486812 ISSN: 0265-2048 the whole document	1-29
Y	WO 01/62280 A (ALTUS BIOLOGICS, INC; MARGOLIN, ALEX; SHENOY, BHAMI) 30 August 2001 (2001-08-30) the whole document	1-29
Y	HIGASHI SHUSHI ET AL: "Hepatic arterial injection chemotherapy for hepatocellular carcinoma with epirubicin aqueous solution as numerous vesicles in iodinated poppy-seed oil microdroplets: Clinical application of water-in-oil-in-water emulsion prepared using a membrane emulsification technique" ADVANCED DRUG DELIVERY REVIEWS, vol. 45, no. 1, 6 December 2000 (2000-12-06), pages 57-64, XP002325772 ISSN: 0169-409X the whole document	1-29
Y	TISCHER W ET AL: "Immobilized enzymes: crystals or carriers?" TRENDS IN BIOTECHNOLOGY, ELSEVIER, AMSTERDAM, NL, vol. 17, no. 8, August 1999 (1999-08), pages 326-335, XP004172537 ISSN: 0167-7799 the whole document	1-29
Y	SHARMA R ET AL: "Production, purification, characterization, and applications of lipases" BIOTECHNOLOGY ADVANCES, ELSEVIER PUBLISHING, BARKING, GB, vol. 19, no. 8, December 2001 (2001-12), pages 627-662, XP004343846 ISSN: 0734-9750 the whole document	1-29

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INTERNATIONAL SEARCH REPORT

PCT/IB2005/000192

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BETANCOR LORENA ET AL: "Preparation of a stable biocatalyst of bovine liver catalase using immobilization and postimmobilization techniques." BIOTECHNOLOGY PROGRESS, vol. 19, no. 3, 2003, pages 763-767, XP001206152 ISSN: 8756-7938 the whole document</p>	1-29

PCT/IB2005/000192 (continuation of second sheet) (January 2004)

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 Inte Application no
 PCT/IB2005/000192

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6343225	B1	29-01-2002	AU 2112001 A	17-04-2001
			CA 2383435 A1	22-03-2001
			EP 1214586 A2	19-06-2002
			JP 2003513230 T	08-04-2003
			WO 0120019 A2	22-03-2001
			US 2002068860 A1	06-06-2002
US 5279847	A	18-01-1994	JP 2765760 B2	18-06-1998
			JP 4258251 A	14-09-1992
			JP 2729330 B2	18-03-1998
			JP 3293026 A	24-12-1991
			JP 2773966 B2	09-07-1998
			JP 4118044 A	20-04-1992
			JP 2773967 B2	09-07-1998
			JP 4118045 A	20-04-1992
			JP 2702611 B2	21-01-1998
			JP 4210553 A	31-07-1992
			CA 2040241 A1	12-10-1991
			DE 69130685 D1	11-02-1999
			DE 69130685 T2	27-05-1999
			DE 69132277 D1	03-08-2000
			DE 69132277 T2	26-10-2000
			DE 69132413 D1	19-10-2000
			DE 69132413 T2	18-01-2001
			EP 0452140 A1	16-10-1991
			EP 0685167 A1	06-12-1995
			EP 0672351 A1	20-09-1995
EP 1088887	A	04-04-2001	EP 1088887 A1	04-04-2001
WO 0162280	A	30-08-2001	US 2001046493 A1	29-11-2001
			AU 4907201 A	03-09-2001
			EP 1261368 A2	04-12-2002
			JP 2003524421 T	19-08-2003
			WO 0162280 A2	30-08-2001
			US 2003017144 A1	23-01-2003

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